



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/715,809	11/17/2003	Krishnan Suresh	KSI-325US	5201
56223 7590 03/12/2007 KULICKE AND SOFFA INDUSTRIES, INC. 1005 VIRGINIA DRIVE FORT WASHINGTON, PA 19034			EXAMINER JOHNSON, JONATHAN J	
			ART UNIT	PAPER NUMBER
			1725	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		03/12/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/715,809

Applicant(s)

SURESH ET AL

Examiner

Jonathan Johnson

Art Unit

1725

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2,7-10,12-17,20 and 22-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2,7-10,12-17 and 20 is/are allowed.
- 6) ☒ Claim(s) 22-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 11-21-06

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 22, 23, 25, 26, 29 and 30 are rejected under 35 U.S.C. 102(e) as being anticipated by Miyoshi (USPN 5699951).

Miyoshi teaches a method of wire bonding by positioning a workpiece on a moving work table, moving a bond head in a horizontal position and moving the workpiece in a second substantially horizontal direction during bonding wherein the bondhead rotates about a horizontal axis and workpieces are supplied from a magazine. The bondhead moves in the x and y directions (figures 5, 8, col 4 line 40 – col 6 line 15 and col 10 line 40 – col 11 line 6).

3. Claims 22 and 24-33 are rejected under 35 U.S.C. 102(e) as being anticipated by Johnson et al. (USPN 6640423 B1).

Johnson teaches a method of wire bonding by positioning a workpiece on a moving work table, moving a bond head in a horizontal position and moving the workpiece in a second substantially horizontal direction during bonding wherein the bondhead rotates about a vertical

Art Unit: 1725

axis and workpieces are supplied from a magazine. The bondhead moves in the x and y directions (figures 2, 3, 9, col 2 line 50 – col 3' line 52, col 6 line 43 – col 8 line 23, col 8 line 55 – col 9 line 27 and col 10 lines 19-48). Multiple bond heads and supports are employed and the camera is conveyed (col 8 lines 1-23 and col 9 lines 10-27).

4. Claims 22, 25, 26, 28-30, 32 and 33 are rejected under 35 U.S.C. 102(e) as being anticipated by Ohkubo et al. (US 2003/0084563 A1).

Ohkubo teaches a method of wire bonding by positioning a workpiece on a moving work table, moving a bond head in a horizontal position and moving the workpiece in a second substantially horizontal direction during bonding wherein the workpieces are supplied from a magazine. The bondhead moves in the x and y directions (figure 3, paragraphs 143-145, 182-184). The camera is conveyed (paragraph 146).

Allowable Subject Matter

5. Claims 2, 7-10, 12-17 and 20 are allowed.

Response to Arguments

Applicant argues the prior art does not teach "moving a bond head of the wire bonding system in a first substantially horizontal direction during the high speed wire bonding operation" and also "moving the workpiece in a second substantially horizontal direction during the high speed wire bonding operation by moving the work table, thereby providing high speed

Art Unit: 1725

translation of the workpiece in the second substantially horizontal direction." The examiner disagrees. The examiner understands that, as with any other claim limitation, functional language is acceptable so long as it sets definite boundaries on the patent protection sought. In *re Barr*, 170 USPQ 33 (CCPA 1971). A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963). To put it another way: While the features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function. In the instant case, as stated in the previous office action, it is the examiner's position that Myoshi, Johnson, and Ohkubo's apparatus is capable of performing in the claimed manner. Applicant has neither argued or provided any extrinsic evidence showing that the apparatus cannot be performed in the claimed manner. The rejection is maintained despite applicant's traversal.

Applicant argues that Ohkubo does not teach wire bonding. The examiner disagrees. During patent examination, the pending claims must be "given the broadest reasonable interpretation." Applicant always has the opportunity to amend the claims during prosecution, and broad interpretation by the examiner reduces the possibility that the claim, once issued, will be interpreted more broadly than is justified. *In re Prater*, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-51 (CCPA 1969). In the instant case, in applying the Prater test by giving the claims its

Art Unit: 1725

broadest reasonable interpretation, it is the examiner's position that Ohkubo's apparatus can be considered a wire bonder because Ohkubo teaches bonding a wire (figure 25, item 7) to a pad (figure 25, item 14).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

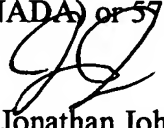
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan Johnson whose telephone number is 571-272-1177. The examiner can normally be reached on M-Th 7:30 AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pat Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1725

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Jonathan Johnson
Primary Examiner
Art Unit 1725

jj